

FAST

(27) Although small amounts of UV absorbing type stabilizers may be effective in controlling the breakdown of 2-mil films, which is thicker than most normal mulch films which are about 1.25 to 1.5 mils, such methods of control are less efficient for thin films, 1.25 mil or less. For these films, different methods of breakdown control are needed. To further explain this phenomenon, examine a film of 0.85 mil compared to previous films having a thickness of 2 mils. Assume that the same amount of UV stabilizer, 0.3% of Tinuvin 327, a benzotriazole type stabilizer, was used. When the film is 2 mils thick a cross section of the film may have stabilizer at the surface or at one or two levels below the surface. When UV radiation contacts the film, it may be absorbed at the top level or by film below the surface. Thickness provides a safety unit to absorb UV radiation.

(28) But with a thin film, the stabilizer must absorb the UV radiation at the surface in order to control the rate of degradation, but since it cannot be at every point on the surface, more stabilizer is needed. For example, if the thickness of the film was reduced from 2 to 1 mil, a reduction of 50% the stabilizer might theoretically have to be increased by a minimum of 50% to obtain the same level of stability. Thus, the drop in cost gained by reducing

 BRS form
 IS&R form
 Image
 Text
 HTML

```
BRS:  
IS&R:  
BRS:  
BRG:  
IS&R:  
BRS:  
IS&R:  
IS&R:  
BRS:  
IS&R:  
IS&R:  
BRS:  
IS&R:  
BRS:  
BRG:  
BRS:  
BRS:  
IS&R:  
  
⓪ Pending  
② Active  
L1: (60) lactone adj2 antioxidant  
L2: (443) tinuvin adj "327"  
L3: (38029) benzotriazole  
L4: (217) 12 same 13  
L5: (40484) 12 ad3 13  
L6: (.13) 12.adj3 13
```

Failed

	U	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	Retrieval C	Inventor	S	C	P	
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030124346 A1	20030703		Removable pressure-sensitive adhesive and adhesive sheet	428/355AC		Yamanaka, Takeshi et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030065065 A1	20030403		Polyamide resin composition having excellent weather	524/99		Urata, Yoshihiro et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6878762 B2	20050412		Polyamide resin composition having excellent weather	524/102	524/538; 524/99	Urata; Yoshihiro et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6869678 B2	20050322		Removable pressure-sensitive adhesive and adhesive sheet	428/355AC	524/457; 524/458;	Yamanaka, Takeshi et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6777470 B2	20040817		Polyolefin additive packages for producing articles with	524/236	524/107; 524/303;	Seip; Steven David et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5582890 A	19961210		Mineral filled heat seammable roof sheeting	428/57	156/157; 156/159;	Davis; James A. et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5387458 A	19950207		Articles exhibiting durable fluorescence with an	428/141	359/361; 359/529;	Pavelka; Lee A. et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	US 5342862 A	19940830	17	Process for controlling the photodegradation of mulch	523/125	264/211; 523/124;	Reich; Murray H.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 4286077 A	19810825	7	Weather resistant adhesive composition	524/505	525/237; 525/338;	St. Clair; David J. et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>	<input type="checkbox"/>	US 4045555 A	19770830	4	Method for the photostabilization of	514/179	424/DIG.12; 514/169;	Ferrari; Giorgio et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 3632395 A	19720104	6	ARTICLE HAVING LIGHT-RESISTANT SIMULATED	428/328	106/402	Dyson; John J.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

 Hits
 Details
 HTML

Ready

